

Applicant: Hart, et al.
Application No.: 10/549,245

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1 - 21 are currently pending in this application. Claims 1 and 6 have been amended. Applicants submit that no new matter has been introduced into the application by these amendments.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 6, 16 and 17 contain allowable subject matter.

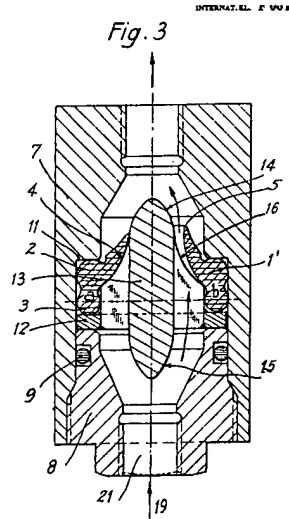
Claim Rejections - 35 USC §112

Claims 1, 2, 5, 6, 10 - 12 and 14 - 21 were rejected in the Action under 35 U.S.C. § 112, second paragraph, as being indefinite. The amendment to the claims 1 and 6 renders the rejection moot. Accordingly, withdrawal of the § 112 rejection is respectfully requested.

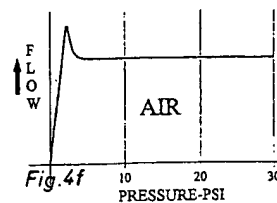
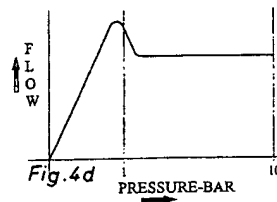
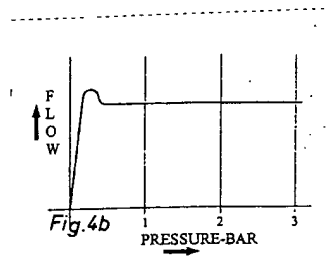
Claim Rejections - 35 USC §102

Claims 1 - 5, 7, 8 - 15 and 18 - 21 were rejected in the Action under 35 U.S.C. § 102(b) as anticipated by German Patent No. DE 11 54 982B. Applicants respectfully traverse this rejection. Claim 1 is directed to a back-flow preventer insert, which can be used in a gas line or a liquid line. The insert including a housing, and a displaceable sealing body arranged in an interior of the housing which can seal a flow opening of a feeder channel in a closed position. The insert is provided with an annular lip shaped part having an annular body held inside the housing, and which, in an area of the flow opening, has at least one sealing lip as the sealing body that can be displaced by the fluid, with a free lip end region that contacts an opposing housing surface in a sealing manner in the closed position.

In contrast, DE 11 54 982B discloses one-way valve that does not provide any through-flow regulation as in the present invention. There is no way for the valve described in DE 11 54 982B to limit the amount of through fluid flow per unit time as in the present invention. Further, the valve of DE 11 54 982B is in its closed position only in the event of a back flow. As shown in Fig. 3 of DE 11 54 982B, reproduced below, as can be viewed on the right side of the figure, when fluid flows through the valve (indicated by arrows), the valve lip 5 opens to allow the fluid through.



The valve lip 5 moves towards the housing 7 when in the open position. Therefore, the valve is incapable of adjusting the volume to a maximum value that can flow through the water line per time unit independent from the pressure. The valve lip 5 is sealed when no fluid passes through, i.e. when it is closed as shown in the left side of Fig. 3 above, and the opening size (and hence flow volume) increases with pressure. In contrast, in the insert of the present invention, the lip gap is narrowed under increasing pressure of the medium flowing through, thereby acting as a flow rate regulator, so that, despite constantly rising pressure, a continuous volume per time unit flows through. This is exemplified by Figs. 4b, 4d, and 4f of the present invention reproduced below.



Despite the increase in pressure, the flow amount remains constant as a result of the lip gap being reduced under increasing pressure of the medium flowing through, thereby acting as a flow rate regulator.

Thus, the DE 11 54 982B operates in a completely opposite way from the present application and as claimed in claim 1. This is discussed in the specification at paragraph [0004]:

[0004] A back-flow valve is known from DE 1 154 982, which is provided with a housing that can be inserted into a gas or liquid line, with a sealing body being movably

arranged inside the housing, which seals the flow opening of a feeder channel in the closed position. The sealing body of the known back-flow valve is embodied as an essentially hose-shaped lip shaped part, extending in the annular direction, which is held inside the housing and contacts with its cylindrical housing part, surrounded by the sealing body, the lip end region in a sealing manner in the area of the flow opening of the feeder channel.

[0005] The sanitary insertion part known from DE 1 154 982 is embodied as a back-flow valve, with its sealing body being adjusted either to an open or a closed position. The insertion part known from 1 154 982 however is not embodied as a flow regulator, which can adjust the volume of the flow passing through the water line per time unit depending on a maximum value independent from the pressure.

Based on the differences noted above, withdrawal of the § 102 rejection of claim 1 is respectfully requested.

Claims 2 - 20 depend directly or indirectly from claim 1 and should be similarly patentable.

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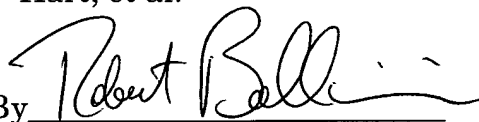
Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 21, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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